

Forecasting models developed in this study consistently overestimated actual future harvest, because the models assume that all factors affecting the behavior of the series remain unchanged; however, trends in commercial landings, effort, and participation have been decreasing for the past several years due to socioeconomic factors. In addition, the inherent variability within the time series causes forecast estimates to have large confidence intervals indicating a high degree of uncertainty. Furthermore, it would be difficult to predict the impact of a notable hurricane on a particular fishery because no two storms are alike and each storm affects the ecosystem differently. Therefore, given the tendency for model overestimation, a large degree of uncertainty, and the individual nature of each storm, these models would be unreliable for predicting the effect of another notable storm on a given fishery.

Recreational Fishing

Out of the 10 recreational fisheries examined in this study, hurricanes had apparent negative impacts on the harvest of dolphinfish, king mackerel, Spanish mackerel, and spotted seatrout. Anglers fish for these species using boats almost exclusively, and the majority of their harvest typically overlaps with hurricane season. When a hurricane is approaching, many fishermen remove their boats from the water to prevent damage resulting in a loss of harvest time. Large storms also often result in damage to docks, vessels, channel markers, and present hazards to navigation, any of which could take several weeks or more to repair resulting in further reductions in effort and harvest. In addition, hurricanes may also redistribute fish or cause them to migrate affecting the catchability of these fish. Based on these results, it is likely that the impact of hurricanes is minimal, or nonexistent, on the harvest of species by anglers fishing from shore or man-made structures; however, hurricanes may limit the opportunities for anglers to make trips when using boats. Species with the majority of their harvest outside of the hurricane season are also not likely to be influenced by hurricane activity. Based on the time series of recreational harvest, there do not appear to be any long-term impacts on harvest of any of the recreational species discussed. A longer time series is needed in order to perform further statistical tests.

The recent history of recreational fishing data collection does not provide an adequate time series for more detailed statistical tests such as intervention analysis. Further, the current